

# HIV incidence among injection drug users in Vancouver

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In this issue (page 894), Patricia Spittal and colleagues report that HIV incidence among injection drug users (IDUs) in Vancouver's Downtown Eastside appears to be greater among women than among men.<sup>1</sup> As the authors point out, this is an unusual finding and grounds for concern. Although not emphasized in the report, HIV infection rates were substantially higher, about twice as high, among both male and female Aboriginal IDUs compared with non-Aboriginals. As a substantially higher proportion of women in the study self-reported identification as an Aboriginal, 41.0% compared with 16.5% for the men, much of the observed difference was probably related to Aboriginal status. In fact, the cumulative HIV incidence rate among Aboriginal subjects was 19.0% (19.4% for women and 18.4% for men) compared with 9.3% among non-Aboriginal subjects (11.3% in women and 8.6% for men). Thus, a very important interpretation of their study is that HIV rates were higher among Aboriginal IDUs.

Aside from the issue of Aboriginal status, women appear to have been at somewhat increased risk of HIV seroconversion. This may have been related to sexual exposure to HIV infection; in fact, both unsafe sex with a regular partner and having an HIV-positive partner were independently associated with infection among women, but not among men. In other studies, women have been found to be at higher risk of infection from sex than men<sup>2</sup> for biologic and perhaps other reasons. This should be a significant part of both the interpretation of the results and consideration of the public health implications.

Beyond the finding of the high HIV incidence observed among women, which is related mostly to a high rate among Aboriginals, the most important finding of the study is the continuing high rates of transmission of HIV among IDUs in Vancouver. Based on estimates from the Kaplan-Meier analysis presented in the paper, annual HIV infection rates were in the range of 3%–5%. For some reason, the rates were substantially higher in the first 6 months following recruitment into the study (12%–18% annual rate) compared with later on (about 2%–3%); it is unclear whether this is a cohort or a calendar effect. Nevertheless, even an incidence of 2% is exceedingly high; HIV infection is still serious and potentially fatal and only in part mitigated by effective antiretroviral regimens. Furthermore, use of these regimens among injection drug-using populations who continue to inject presents major

challenges with respect to adherence: studies have shown that adherence must be exceptionally high (> 95%) for such regimens to be effective.<sup>3</sup> Thus, this high rate of HIV transmission reflects a catastrophic situation that, if sustained, will cause thousands of IDUs in Vancouver alone to acquire this infection over the next decade, with untold cost in expenses for medical and other support services as well as in human misery. Despite the fact that Vancouver has one of the highest volumes of needle exchange in Canada and the world, HIV transmission continues to occur at an alarming rate.

The observations from this and other similar studies must cause us to reassess our current strategy for controlling HIV infection. First, we must reconsider the legal framework of society's response to substance abuse, in general, and injection drug use, in particular. Clearly, the expensive and resource-draining activities devoted to the enforcement of Canada's drug laws must be seriously questioned. This is the current preoccupation of the House of Commons Special Committee on the Non-Medical Use of Drugs, which is currently in the process of gathering information through national hearings. We will need to be particularly wise and open-minded about considering different and potentially more effective modifications to our drug laws and their enforcement. It is probably opportune to consider decriminalizing simple possession and treating substance abuse primarily as a medical and public health problem rather than a criminal one. Society should hesitate to put such efforts into censoring behaviour that, in a direct sense, has no other victim than the person himself or herself.

The development and implementation of "safe injection sites" is an intriguing option that may be of some benefit to a subset of the IDU population.<sup>4</sup> The efficacy, effectiveness and efficiency of such an approach remain, however, to be demonstrated. It may be that the people who need such facilities most are in a chaotic and disorganized state and are not likely to use them. Nevertheless, I believe that safe injection sites are a worthwhile option that deserves to have a systematic and rigorous evaluation.

The accessibility of services at all thresholds must also be seriously reassessed. Needle exchanges should do far more than provide needles; they should be the port of entry into a care system that can help many, though not all, in a vulnerable population to deal effectively with their addiction. In many parts of the country, waiting lists for detoxifi-

cation programs are long and deter individuals who are ready to deal with their addiction from doing so. Obstacles to individuals' access to detoxification and rehabilitation must be removed

Finally, we must seriously re-examine our social policy, especially in the context of the Aboriginal population. Current policies create the conditions for social degeneration and disorganization that lead to multiple psychological and social problems, including injection drug use. We must fully involve addicted individuals in efforts to identify new and potentially effective means to address the problem of addiction, as well as to increase the proportion of injections that are free from the risk of HIV and other serious blood-borne infections.

Unfortunately, it is difficult to be hopeful in this regard. Similar observations were made in a study from the same group almost exactly 5 years ago,<sup>5</sup> following the first wave of high HIV incidence among IDUs in Vancouver. One has to wonder what it will take for policy-makers to deal seriously with this problem.

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# Aiming for zero: preventing mother-to-child transmission of HIV

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This issue (page 904) contains a report by Ari Bitnun and colleagues about 6 HIV-infected infants born to women who were unaware of their seropositive status.<sup>1</sup> None of these women were tested for HIV during pregnancy and, in spite of recommendations in Ontario that all pregnant women be offered HIV testing during pregnancy, 3 of these women recalled no offer of testing.

In working toward the elimination of mother-to-child transmission of HIV, 5 activities are critical in the prenatal and perinatal period.<sup>2</sup> Pregnant women must present for prenatal care and must be offered and accept HIV testing. Women found to be HIV-positive must accept and be able to complete a regimen of chemoprophylaxis.

## Presentation for prenatal care

Almost all pregnant women in Canada present for prenatal care.<sup>3</sup> There are few published studies of the frequency and timing of prenatal care in Canada, but one such study in British Columbia reported that most women present before the second trimester, which is the optimal time for the initiation of treatment of women found to be in-

fectured with HIV.<sup>4</sup> There are, however, subgroups of women who may not receive adequate care.<sup>3,4</sup> Some groups, particularly immigrant and refugee women who may not receive adequate care if they lack medical coverage, may also be at increased risk for HIV infection. For women who receive no antenatal care, an enzyme-linked immunosorbent assay test should be done as early as possible in labour, with informed consent. Although chemoprophylaxis given solely in labour has been found to reduce the risk of transmission,<sup>5</sup> these interventions are not as effective as regimens begun earlier in pregnancy.

## Offer and acceptance of HIV testing

Because many HIV-infected women have no identified risk factors other than heterosexual intercourse,<sup>6</sup> and are unaware of their seropositive status, universal screening is the only means by which all infected women may be identified. The existence of a universal policy increases the likelihood that a physician will offer the test.<sup>7</sup> There is evidence that, if it is offered, most women accept screening for HIV during their pregnancy.<sup>8</sup> A universal offer therefore increases the